

Amendments to the Specification

Please replace the paragraph from page 14, line 23 to page 15, line 7 with the following amended text:

The above described tri-color tracing approach may be perceived as if the traversal of the reachability graph proceeds in a wavefront of gray objects, which separates the white objects from the black objects that have been passed by the wave. In effect, there are no pointers directly from black objects to white objects, and thus mutators preserve the invariant that no black object holds a pointer directly to a white object. This ensures that no space of live objects is mistakenly reclaimed. In case a mutator creates a pointer from a black object to a white object, the mutator must somehow notify the collector that its assumption has been violated to ensure that the garbage collector's reachability graph is kept up to date. The example approaches to coordinating the ~~garbage collect~~ garbage collector and a concurrently running mutator may involve a read barrier or a write barrier. A read barrier may detect when the mutator attempts to access a pointer to a white object, and immediately colors the object gray. Since the mutator cannot read pointers to white objects, the mutator cannot install them in black objects. A write barrier may detect when a concurrently running mutator attempts to write a pointer into an object, and trap or record the write.